

P.O. Box 747  
Falls Church, Virginia 22040-0747  
Phone: (703) 205-8000  
Fax: (703) 205-8050  
(703) 698-8590 (GIV)

**Birch, Stewart, Kolasch & Birch, LLP**

# Fax

**To:** Examiner Elizabeth Slobodyansky **From:** Mark J. Nuell, Ph.D.

Art Unit 1652, USPTO

**Fax:** 571-273-0941 **Date:** March 24, 2004

**Phone:** **Pages:** 8 (including cover sheet)

**Your Ref.:** Application No. 09/068,507 **Our Ref.:** 1380-0122P

**Re:** Proposed claim amendments for our **CC:**  
discussion tomorrow (3-25-2004)

☐ **Urgent** ☒ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

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**Comments:**

**DRAFT AMENDED CLAIMS**

107. (currently amended) An isolated nucleic acid comprising:

two repeated nucleotide sequences 5 to 10 nucleotides long and spaced 17 to 23 nucleotides apart, wherein the downstream member of said repeated sequence is located 30 to 38 nucleotides upstream from a -10 region of a bacterial gene,

wherein said repeated nucleotide sequences are selected from the group consisting of ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:6, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:7, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:8, ~~residues~~nucleotides 7-14 and 31-38 of SEQ ID NO:9, and ~~residues~~nucleotides 7-8, 10-14 and 31-38 of SEQ ID NO:10;

wherein, when present in a lactic acid bacterium host cell, said isolated nucleic acid functions as a promoter that is inducible by a peptide having an amino acid sequence of SEQ ID NO: 1 or of amino acids 19-37 of SEQ ID NO: 3.

108. (canceled).

109. (currently amended) A vector comprising ~~an inducible promoter~~ a promoter that, when present in a lactic acid bacterium host cell, is inducible by a peptide having an amino acid sequence of SEQ ID NO: 1 or of amino acids 19-37 of SEQ ID

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NO: 3 and that comprises two repeated nucleotide spaced 17 to 23 nucleotides apart and selected from the group consisting of ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:6, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:7, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:8, ~~residues~~nucleotides 7-14 and 31-38 of SEQ ID NO:9, and ~~residues~~nucleotides 7-8, 10-14 and 31-38 of SEQ ID NO:10;

the promoter being operatively linked to a multiple cloning site for inserting a polynucleotide of interest so that the inducible promoter controls transcription of an inserted polynucleotide of interest.

110. (currently amended) The vector of claim 109, ~~wherein the~~ further comprising a polynucleotide of interest that encodes a polypeptide having proteolytic activity, carbohydrolytic activity or autolytic activity.

111. (previously presented) A gene expression system comprising the vector of claim 109 and further comprising a *Lactobacillus* host cell.

112-125. (canceled).

126. (currently amended) A kit comprising:

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- (a) the vector of claim 109; and
- (b) a peptide consisting of an amino acid sequence of SEQ ID NO: 1 or ~~residues~~nucleotides 19-37 of SEQ ID NO: 3.

127. (previously presented) The kit of claim 126 further comprising a *Lactobacillus* host cell.

128. (currently amended) A vector comprising a promoter that, when present in a lactic acid bacterium host cell is inducible by a peptide having an amino acid sequence of SEQ ID NO: 1 or of amino acids 19-37 of SEQ ID NO: 3 and an inducible promoter that comprises two repeated nucleotides spaced 17 to 23 nucleotides apart and selected from the group consisting of ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:6, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:7, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:8, ~~residues~~nucleotides 7-14 and 31-38 of SEQ ID NO:9, and ~~residues~~nucleotides 7-8, 10-14 and 31-38 of SEQ ID NO:10;

operatively linked to a polynucleotide of interest that encodes an enzyme having proteolytic activity, carbohydrolytic activity or autolytic activity so that the inducible promoter controls transcription of the polynucleotide of interest.

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129. (currently amended) A vector comprising a promoter that, when present in a lactic acid bacterium host cell, is inducible by a peptide having an amino acid sequence of SEQ ID NO: 1 or of amino acids 19-37 of SEQ ID NO: 3 and an ~~inducible~~ promoter that comprises two repeated nucleotide spaced 17 to 23 nucleotides apart and selected from the group consisting of ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:6, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:7, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:8, ~~residues~~nucleotides 7-14 and 31-38 of SEQ ID NO:9, and ~~residues~~nucleotides 7-8, 10-14 and 31-38 of SEQ ID NO:10;

operatively linked to a restriction enzyme site for inserting a polynucleotide of interest so that the inducible promoter controls transcription of an inserted polynucleotide of interest.

130. (currently amended) A kit comprising:

- (a) the vector of claim 129; and
- (b) a peptide consisting of an amino acid sequence of SEQ ID NO: 1 or ~~residues~~nucleotides 19-37 of SEQ ID NO: 3.

131. (previously presented) The kit of claim 130, further comprising a *Lactobacillus* host cell.

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132. (currently amended) A vector comprising a promoter that, when present in a lactic acid bacterium host cell, is inducible by a peptide having an amino acid sequence of SEQ ID NO: 1 or of amino acids 19-37 of SEQ ID NO: 3 and an ~~inducible~~ promoter that comprises two repeated nucleotide spaced 17 to 23 nucleotides apart and selected from the group consisting of ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:6, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:7, ~~residues~~nucleotides 7-14 and 30-38 of SEQ ID NO:8, ~~residues~~nucleotides 7-14 and 31-38 of SEQ ID NO:9, and ~~residues~~nucleotides 7-8, 10-14 and 31-38 of SEQ ID NO:10;

operatively linked to a polynucleotide of interest obtained from a source other than a *Lactobacillus* cell, so that the inducible promoter controls transcription of an inserted polynucleotide of interest.

133. (currently amended) A kit comprising:

- (a) the vector of claim 132; and
- (b) a peptide consisting of an amino acid sequence of SEQ ID NO: 1 or ~~residues~~nucleotides 19-37 of SEQ ID NO: 3.

134. (previously presented) The kit of claim 133, further comprising a *Lactobacillus* host cell.

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135. (new) A host cell comprising the vector of claim 109.
136. (new) A host cell comprising the vector of claim 110.
137. (new) A host cell comprising the vector of claim 128.
138. (new) A host cell comprising the vector of claim 129.
139. (new) A host cell comprising the vector of claim 132.
140. (new) The host cell of claim 135 that is a *Lactobacillus* cell.
141. (new) The host cell of claim 136 that is a *Lactobacillus* cell.
142. (new) The host cell of claim 137 that is a *Lactobacillus* cell.
143. (new) The host cell of claim 138 that is a *Lactobacillus* cell.
144. (new) The host cell of claim 139 that is a *Lactobacillus* cell.

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145. (new) The nucleic acid of claim 107, wherein the lactic acid bacterium host cell is a *Lactobacillus* cell.

146. (new) The vector of claim 109, wherein the lactic acid bacterium host cell is a *Lactobacillus* cell.

147. (new) The vector of claim 128, wherein the lactic acid bacterium host cell is a *Lactobacillus* cell.

148. (new) The vector of claim 129, wherein the lactic acid bacterium host cell is a *Lactobacillus* cell.

149. (new) The vector of claim 132, wherein the lactic acid bacterium host cell is a *Lactobacillus* cell.